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March 8, 2021

VIA EMAIL
Mr. Edward D'Amato
Site Coordinator
Ohio EPA
Northeast District Office
Division of Environmental Response & Revitalization
2110 East Aurora Road
Twinsburg, Ohio 44087

RE: Revised Groundwater Sampling Procedures
Summit National Superfund Site
Deerfield Township, Portage County, Ohio

Dear Mr. D'Amato:

On behalf of the Summit National Facility Trust (SNFT), transmitted herewith are revisions to Section 12.4.3.3 of the Quality Assurance Project Plan (QAPP) for the Summit National Superfund Site (SNSS; Site). In accordance with your July 1, 2020 comments and our response letter to you dated October 26, 2020, SNSS will discontinue the previous monitoring well purging and sampling methods utilizing volumetric purging methods using Waterra-brand "Hydrolift" equipment with subsequent sample collection using stainless steel bailers. Beginning in 2021, for wells that do not purge dry prior to sample collection, low-flow purging methodologies will be utilized for monitoring well purging, where applicable. In wells where low-flow methods are employed, sample collection will occur immediately after purging is complete using the same equipment used for purging. For low-yielding wells, minimum purge protocols will be followed.

These changes are being made for consistency with current industry-wide practices and in response to the above referenced comments. The attached, updated methods and procedures replace in their entirety those previously included in QAPP Section 12.4.3.3: "Groundwater Monitoring Well Sampling Procedures." In advance of the next event (Spring 2021) and in an effort to upgrade the sampling techniques to further ensure consistent sample representativeness, non-dedicated bladder-style sampling pumps will be set within the well screens and the described low-flow and minimum purge sampling techniques will be followed, where appropriate. These changes to the SNSS sampling program are consistent with the latest Ohio EPA and U.S. EPA guidance. In summary, the following changes will be made in response to your July 2020 letter:

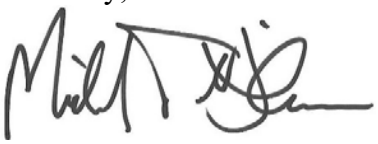
- Sample each SNSS monitoring well with non-dedicated bladder pumps. The bladder pumps will replace inertial lift pumps and bailers previously used to purge and sample each monitoring well.
- Implement low-flow and minimum purge sampling techniques in accordance with current U.S. EPA and Ohio EPA guidance, where applicable. The low-flow and minimum purge

techniques to be employed are detailed in the attached revisions to Section 12.4.3.3 of the QAPP.

Unless you have any questions or concerns, SNFT will be implementing these changes beginning with the Spring 2021 sampling event tentatively scheduled for April 2021.

If you have any questions regarding this submittal, please contact Joe Montello at (330) 805-4352 or me at (614) 888-5760.

Sincerely,



Michael T. Gibson, CPG
SNSS Project Coordinator

MTG/kj
encl.
cc: Mitchell Latta, RPM, U.S. EPA Region 5
Joe Montello, SNSS Alternate Project Coordinator
Jeff Sussman, SNFT
Amy Lee, SNFT
Doug Haynam, Shumaker, Loop & Kendrick, LLP

REVISED SECTION 12.4.3.3

GROUNDWATER MONITORING WELL SAMPLING PROTOCOLS

12.4.3.3 Groundwater Monitoring Well Sampling Protocols

Groundwater samples will be obtained using the following sampling protocols:

1. The depth of water in each well will be measured to the nearest 0.01 foot using an electric tape. The measuring device will be prec1eaned prior to use in each well using the cleaning sequence provided in Section 12.4.1 of the QAPP.

2. Purging and Sampling Equipment

   Purging and sample collection from monitoring wells will be extracted using non-dedicated bladder-style stainless steel sampling pumps on dedicated polyethylene tubing at each well. The air needed to operate the bladder pumps will be supplied with compressed air from a battery-powered compressor, gasoline-powered compressor, or inert gas from pressurized canisters. The air pressure and pump cycle durations will be regulated using portable purging controllers.

   Whenever a gasoline-powered air compressor or generator is used, the engine and gasoline container will be segregated from other equipment during transport as much as possible and engine exhaust will be directed away and downwind from the well. Work gloves or nitrile gloves will be worn when fueling or adjusting the engine and replaced with new gloves before handling sampling equipment and containers.

   The pump intakes will be set to a depth within the screened interval in each monitoring well during purging and sampling.

3. Well Purging Criteria – High Yielding Wells

   Low-flow groundwater sampling procedures will be used for purging and sampling monitoring wells that will sustain a pumping rate of at least 100 ml/min. Water will be purged from these wells at low rates in order to minimize drawdown and achieve water-

level stabilization in the well during purging and sampling. Depth-to-water measurements and field water-quality parameters specific conductance, pH, and temperature collected during purging will be used as criteria to determine when purging has been completed. Sample collection will be initiated immediately after purging is complete in these wells.

Prior to purging, a static water level will be measured and the water level and the time of measurement will be recorded on a field data form. Water-level measurements recorded during purging to verify water-level stabilization also will be recorded. A field data form will be completed for each sampling location.

During purging, wells will be pumped at rates that allow the water level to stabilize as soon as practical. Purging rates in the range of 0.1-0.5 L/min (100-500 ml/min) typically will be used and rates of up to 1 L/min may be used early during purging to facilitate water-level stabilization. Stabilization of the water column will be considered achieved when three consecutive water-level measurements fluctuate within a range of 0.3 feet or less at pumping rates of 100-500 ml/min.

Field water-quality parameter measurements of pH, specific conductance, and temperature also will be measured during purging at each well. Optional parameters of dissolved oxygen and oxidation-reduction potential may also be collected. Depth-to-water measurements and water-quality parameter measurements typically will be made every 3-5 minutes (or less frequently) during purging. If a meter equipped with a flow cell is used, the full volume of the flow cell will be purged between field measurements. Stabilization will be considered achieved and purging will be considered complete when a minimum of three consecutive measurements of depth to water, pH, temperature, and specific conductance vary within the following limits: 0.3 feet for depth to water; 0.2 S.U. for pH; 3 percent for specific conductance; and 0.5 degrees Celsius for temperature. Sample collection will be initiated immediately after purging at each monitoring well. Turbidity, in addition to depth-to-water, temperature, pH, and specific conductance will be measured at the end of purging. All field measurements will be recorded on the field data form.

4. Well Purging Criteria – Low-Yielding Wells

   The minimum purge (MP) procedure will be used for collecting samples from low-yielding wells. A well will be considered low yielding if water-level stabilization cannot be achieved at a pumping rate of 100 ml/min or less. Low-yielding wells will be sampled after the volume of the pump system in the well has been evacuated. This procedure allows for the collection of water that is present within the screened interval of the well and not from stagnant casing water above the screen. Prior to and during sampling, water levels will be monitored in an attempt to ensure that drawdown does not exceed the distance between the pump intake and the top of the screen (i.e., only water from the screen interval is sampled). This criterion may not be met at all wells due to limited water availability within the screened interval (e.g., short well screens) and may be exceeded in order to fill a complete sample set. Exceeding the drawdown limit is preferable to purging the well to dryness prior to sample collection, but will be minimized as much as possible and noted on the field form.

5. Sample bottles will be filled directly from the pump's discharge tubing carefully to avoid aeration of the samples as much as possible. Pumping rates will reduced as necessary during sampling to reduce sample aeration.

6. A field duplicate sample will be collected at a frequency of one per 10 investigative samples collected or at a minimum or one per sampling event.

7. Samples will be collected for MS/MSD analysis at a frequency of one per twenty investigative samples. The MS/MSD samples will be samples collected from groundwater monitoring wells at the site. The chain-of-custody sent to the laboratory will indicate the samples collected for MS/MSD analysis.

8. A field rinsate blank sample will be collected at a frequency of one per ten investigative samples collected or at a minimum one per sampling event. This sample will consist of

deionized water poured into, and then sampled out of, a precleaned sample pump. This will provide a quality control check on the decontamination procedures employed for the sample pumps.